Approved For Release 2001/07/30: CIA-RDP78B04747A000100070028-4

Declass Review, NIMA/DoD

25 July 1962

MEMORANDUM FOR: Chief, Technical Plans and Development Staff

THROUGH:

Chief, Technical Development Branch Muk - 25

SUBJECT:

Trip Report,

9 - 19 July 1962,

25X1A

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Image Enhancement Instrument 1.

On arrival at the factory, the undersigned was shown a film transparency of a series of lines projected and developed on a small piece of film (about one inch by two inches). This was the result of some first tests made with the image enhancement instrument. Mechanical difficulties resulting from too rapid a speed in the oscillations of the rocking mirror caused unsatisfactory heavy density areas.

A new cam was constructed and operated at a reduced rate of mirror oscillation, (from 12.5 to approximately 4 oscillations per second). This was assembled on a jury rig set-up for the benefit of the undersigned to show the improved picture of the scanning light beam.

At the time of departure from the company, the undersigned had not seen any tests made on film using this device as modified. A definite effort is being made by the factory to speed up fabrication of a precision cam in order to test the instrument at the reduced scanning speed.

A program was initiated by the undersigned to test the degree of enhancement by the device as that compared to a chemical system of chromium intensification as would be used by commercial photographers. completed the exposed and The factory photographer, developed 35 mm. film for these tests.

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Exhibited at the factory was a mock-up model of a new scanning system for the image enhancement instrument as planned for another entirely separate program. It consists of two heavy discs on a common axis with three built-in lenses on each disc. The scanning would be accomplished by a projected light scribing a series of light drawn arcs across the face of sensitized film. This system does away with the mechanical difficulties of the oscillating mirror. The weak point of this system could be the loss of light through the optic system.

